Amendments to the specification:

Please replace the paragraph beginning at page 3, line 14 with the following rewritten paragraph:

--Sialic acids are however not only important with the body's own identification processes, but are also receptors for certain bacteria, viruses and toxins. For example, the binding of the tetanus toxin to gangliosides of nerve synapses happens by means of sialic acids (Schauer *et al.*, 1995). The sialic acid-specific adhesion by means of microbial lectins (Sharon and Lis, 1997) is often a critical step with infectious diseases, for example with newborn meningitis brought about by some *E. coli* stems or with infections of the gastric mucosa by means of ~~*helicobacter pylori*~~ *Helicobacter pylori*. Above all, the flu viruses Influenza A and B viruses attach onto the cells to be infected by means of sialic acid (Schauer, 2000).--

Please replace the paragraph beginning at page 4, line 2 with the following rewritten paragraph:

--Figure 1 shows a comparison of the amino acid part sequences of the trans-sialidases TS1 (SEQ ID NO. 2) and TS2 (SEQ ID NO. 4) in accordance with the invention. Identical amino acids in both sequences are indicated in bold. The correspondence (sameness) of the two part sequences is only approximately 50 %.

Figure 2 shows the different reactions of sialidase, sialyltransferases and trans-sialidases.

Figure 3 shows a comparison of the amino acid sequence of the sialidase obtained from *Trypanosoma rangeli (T.r.s)*, the trans-sialidase from *Trypanosoma cruzi* (T. cr. TS) and the trans-sialidase from *Trypanosoma brucei brucei* T. b. br. TS) with part

sequences of both trans-sialidases from *Trypanosoma congelense* T. con. TS1 (SEQ ID NO. 2) and T. con. TS2 (SEQ ID NO. 4)) in accordance with the invention. Amino acids, which are identical in all sequences, are shown as white on a dark grey background. Amino acids which are identical in at least 4 of the 5 sequences are printed in black on dark grey, whereas amino acids which correspond in at least 3 of the 5 sequences are shown by a lighter grey.--

Please replace the paragraph beginning at page 9, line 23 and ending at page 10, line 8 with the following rewritten paragraph:

--Resulting from the transfer of the sialic acids to selected carrier structures are, for example, products for changing inflammation reactions, changing cellular interactions in human and animal bodies, protection of the body's own tissues against attacks from one's own immune system (autoimmune reactions), "exposure" of cancer cells in a patient's body so that they can be combatted by the body's own immune system (cancer therapy and cancer prevention), combatting the penetration of pathogenic bacteria into human and animal bodies, prevention of and combatting viral infections, combatting infections of the gastric mucosa by means of *Helicobacter pylori,* combatting newborn meningitis caused by bacteria and viruses, preventive and therapeutic influence of receptors of ~~eucaryontic~~ eucaryotic and ~~procaryontic~~ procaryotic pathogenic organisms, bacteria, viruses and toxins to prevent the same from becoming active in human and animal bodies, inhibition of the binding of the cholera toxin to human and animal mucosa of the digestive tract, development of a vaccine against Trypanosomiasis, development of enzyme inhibitors to combat (therapy) *Trypanosoma* infections, influence of molecular and cellular identification processes in human and animal bodies, protection of glycoproteins and cells against attack from proteases and other enzymes, amongst other things also for protection against decomposition of the molecules by enzymes

of the human and animal digestive tract, influence of the development of body tissues and influence of the morphogenesis of body tissues.--

Please replace the paragraph beginning at page 22, line 21 and ending at page 23, line 5 with the following rewritten paragraph:

--"Stringent" conditions are to be ~~understand~~ understood as when, for example, following the Southern or Northern Blot, the DNA or RNA fragments are hybridised on the membranes with a probe under specific conditions, ie. with a termperature of 60-70°C (38-42°C with 50 % hybridisation solutions which contain 50 % formamide). Moreover, the conditions are specific or stringent when the washing steps carried out following on from the hybridisation for the elution of non-specifically hybridised DNA or RNA probes are also specifically carried out. Specific washing steps are generally the washing, twice over, at 20-25°C for 5-10 mins with 2xSSC buffer which contains 0.1 % SDS (sodium dodecylsulphate) and subsequent washing, twice over, with a buffer with low ionic strength (eg. 0.1 x SSC with 0.1 % SDS) at a higher temperature (eg. 64°C). [20x SSC: 3M NaCl, 0.3 M sodium citrate, pH 7.0]. In so doing, only those nucleic acids which are complementary to a large extent remain bonded to one another. The creation of stringent conditions is known to experts in the field and is described eg. in Ausubel et al., Current Protocols in Molecular Biology, John Wiley & Sons, N.Y. (1989), 6.3.1-6.3.6.--

Please replace the paragraphs beginning at page 28, line 12 and ending at page 29, line 3 with the following rewritten paragraphs:

--In accordance with the invention, homologously recombined microorganisms can also be produced. For this, a vector is produced which contains at least one section of a gene in accordance with the invention or of a coding sequence into which, if so required, at least one amino acid deletion, addition or substitution is introduced in order to change the sequence in accordance with the invention, eg. to disrupt it

functionally ("knockout" vector). The sequence introduced can eg. also be a homologue from a related microorganism or be derived from a mammal, yeast or insect source. The vector used for the homologous recombination can alternatively be of such a form that the endogenous gene is mutated or changed in another way in the homologous recombination, but still codes the functional protein (eg. the regulatory region located upstream can be changed in such a way that in this way, the expression of the endogenous protein is changed). The changed section of the gene in accordance with the invention is in the homologous recombination vector. The construction of suitable vectors for the ~~homolous~~ homologous recombination is described eg. in Thomas, K.R. and Capecchi, M.R. (1987) Cell 51:503.

As host organisms, in principle all organisms are suitable which make possible an expression of the nucleic acids in accordance with the invention, of their allele variants, their functional equivalents or derivatives. Host organisms are to be understood as being, for example, bacteria, fungi, yeasts, plant or animal cells. Preferred organisms are bacteria, such as those of the ~~Escherichia~~ *Escherichia* genus such as eg. ~~Escherichia coli, Streptomyces, Bacilius or Pseudomonas, eucaryotic microorgansms such as Saccharomyces cerevisiae, Aspergillus,~~ *Escherichia coli, Streptomyces, Bacilius* or *Pseudomonas*, eucaryotic microorgansms such as *Saccharomyces cerevisiae, Aspergillus*, higher eucaryotic cells from animals or plants, for example Sf9 or CHO cells.--

Please replace the paragraph beginning at page 31, line 6 with the following rewritten paragraph:

--The desired product can be obtained from the microorganism or from the culture supernatant by means of different methods known within the specialist field. If the desired product is not separated from the cells, the cells can be harvested from the culture by slow centrifugation, the cells can be ~~lysated~~ lysed by standard techniques

such as mechanical force or ultrasound treatment. The cell detritus is removed by centrifugation, and the supernatant fraction which contains the soluble proteins, is obtained for the further purification of the desired compound. If the product is separated from the cells, the cells are removed from the culture by means of slow centrifugation, and the supernatant fraction is kept for further purification.--